#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



#### **Region 6 Laboratory**

Environmental Services Branch 10625 Fallstone Road, Houston, TX 77099 Phone: (281)983-2100 Fax: (281)983-2248

# **Final Analytical Report**

Site NameOil Trust Fund
Sample Collection Date(s) 08/05/10
Contact Rich Mayer (6PD-F)
Report Date 08/10/10
Project # 10REG225
Work Order(s)1008017

Analyse	es inc	luded	in	this	repor	t:
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LC DOSS

# **Report Narrative**

Sample 1008017-04 (vial A) showed a DOSS value of 20.4 ug/L (ppb). For confirmation purposes, sample 1008017-04RE1 (vial B) was extracted. DOSS was undetected above the reporting level in vial B. The laboratory is unable to confirm the presence of DOSS in the sample. Due to possible lab error during the extraction process of vial A, the results of vial B are being reported as estimated.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

Reporting limits are adjusted for sample size and matrix interference.

David Neleigh
Region 6 Laboratory Branch Chief

# THITED STATES

Please provide a reason for holding:

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

# **Region 6 Environmental Services Branch Laboratory**

10625 Fallstone Road Houston, Texas 77099

# **Sample Receipt and Disposal**

Site Name: Oil Trust Fund	Project Number: 10REG225				
Data Management Coordinator: Christy Warren	/ /				
Data Management Coordinator Signature	Date				
Date Transmitted:/					
Please have the U.S. EPA Project Manager/Officer ocuments or questions.	call the Data Management Coordinator at 3-2137 for any				
Please sign and date this form below and return it w	ith any comments to:				
Christy Warren Data Management Coordinator Region 6 Laboratory 6MD-HS					
Received by and Date					
Comments:					
The laboratory routinely disposes of samples 90 day hold these samples in custody longer than 90 days, p	es after all analyses have been completed. If you have a need to blease sign below.				
Signature	Date				



# **Region 6 Laboratory**

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#### ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
T007-2331-100805-SW-05-1	1008017-01	Liquid	8/5/10 10:50	08/06/10 09:20
T007-2333-100805-SW-03-1	1008017-02	Liquid	8/5/10 13:35	08/06/10 09:20
T007-2337-100805-SW-04-1	1008017-03	Liquid	8/5/10 12:40	08/06/10 09:20
T001-1405-100805-SW-02-1	1008017-04	Liquid	8/5/10 11:30	08/06/10 09:20
T001-2002-100805-SW-1	1008017-05	Liquid	8/5/10 9:50	08/06/10 09:20
T005-0010-100805-SW-1	1008017-06	Liquid	8/5/10 12:28	08/06/10 09:20
T005-2339-100805-SW-1	1008017-07	Liquid	8/5/10 11:15	08/06/10 09:20

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# Region 6 Laboratory

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# DOSS by LC/MS/MS

Lab ID: 1008017-01

Batch: B0H0605 Sample Type: Liquid Station ID: T007-2331-100805-SW-05-1

Date Collected: 08/05/10 Sample Volume: 22 ml

Sample Qualifiers:

## **Surrogates**

Analyte	Result µg/l	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: DOSS-D34	188		104	50-150	08/06/10 08/06/10

#### **Targets**

Analyte (CAS Number)	Result µg/l	Analyte Qualifiers	Reporting Limit	Dilution	Prepared Analyzed
Dioctyl sulfosuccinate, sodium salt (577-11-7)	U		20.0	1	08/06/10 08/06/10

This LC/MS/MS method is a developmental method that was created specifically for the Gulf oil spill by the Region 6 lab in conjunction with other EPA laboratories. Therefore it has not been validated with the normal rigorous procedures and performance data that an EPA method would normally complete before being released. Improvements will continue to be made to this method as more is learned about the nuances of this technique with these analytes and various matrices. Proper sample collection or preservation procedures have not been established and holding times are unknown.

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# **Region 6 Laboratory**

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

# DOSS by LC/MS/MS

1008017-02 Lab ID:

Batch: B0H0605 Sample Type: Liquid Station ID: T007-2333-100805-SW-03-1

Date Collected: 08/05/10 Sample Volume: 23 ml

Sample Qualifiers:

# **Surrogates**

Analyte	Result µg/l	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
Surr: DOSS-D34	170		97.5	50-150	08/06/10	08/06/10
		<b>Targets</b>				
Analyte (CAS Number)	Result µg/l	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dioctyl sulfosuccinate, sodium salt (577-11-7)	U		20.0	1	08/06/10	08/06/10

This LC/MS/MS method is a developmental method that was created specifically for the Gulf oil spill by the Region 6 lab in conjunction with other EPA laboratories. Therefore it has not been validated with the normal rigorous procedures and performance data that an EPA method would normally complete before being released. Improvements will continue to be made to this method as more is learned about the nuances of this technique with these analytes and various matrices. Proper sample collection or preservation procedures have not been established and holding times are unknown.

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# Region 6 Laboratory

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# DOSS by LC/MS/MS

Lab ID: 1008017-03

Batch: B0H0605 Sample Type: Liquid Station ID: T007-2337-100805-SW-04-1

Date Collected: 08/05/10 Sample Volume: 23 ml

Sample Qualifiers:

# **Surrogates**

Analyte	Result µg/l	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: DOSS-D34	159		91.7	50-150	08/06/10 08/06/10
		<b>Targets</b>			
Analyte (CAS Number)	Result µg/l	Analyte Qualifiers	Reporting Limit	Dilution	Prepared Analyzed
Dioctyl sulfosuccinate, sodium salt (577-11-7)	U		20.0	1	08/06/10 08/06/10

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# Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

# DOSS by LC/MS/MS

1008017-04RE1 Lab ID:

Dioctyl sulfosuccinate, sodium salt (577-11-7)

Batch: B0H0901 Sample Type: Liquid Date Collected: 08/05/10 Sample Volume: 23 ml

Sample Qualifiers:

08/09/10 08/09/10

Station ID: T001-1405-100805-SW-02-1

1

#### **Surrogates**

Analyte	Result µg/l	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: DOSS-D34	177		102	50-150	08/09/10 08/09/10
		Targets			
Analyte (CAS Number)	Result µg/l	Analyte Qualifiers	Reporting Limit	Dilution	Prepared Analyzed

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20.0

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preservation procedures have not been established and holding times are unknown.

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# **Region 6 Laboratory**

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# DOSS by LC/MS/MS

Lab ID: 1008017-05 Station ID: T001-2002-100805-SW-1

Batch: B0H0605 Date Collected: 08/05/10 Sample Type: Liquid Sample Volume: 24 ml

Sample Qualifiers:

# **Surrogates**

Analyte	Result µg/l	Analyte Qualifiers		%Recovery Limits	Prepared Analyzed
Surr: DOSS-D34	174		104	50-150	08/06/10 08/06/10
		<b>Targets</b>			
Analyte (CAS Number)	Result µg/l	Analyte Qualifiers	Reporting Limit	Dilution	Prepared Analyzed
Dioctyl sulfosuccinate, sodium salt (577-11-7)	U		19.6	1	08/06/10 08/06/10

This LC/MS/MS method is a developmental method that was created specifically for the Gulf oil spill by the Region 6 lab in conjunction with other EPA laboratories. Therefore it has not been validated with the normal rigorous procedures and performance data that an EPA method would normally complete before being released. Improvements will continue to be made to this method as more is learned about the nuances of this technique with these analytes and various matrices. Proper sample collection or preservation procedures have not been established and holding times are unknown.

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# Region 6 Laboratory

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# DOSS by LC/MS/MS

Lab ID: 1008017-06

Batch: B0H0605 Sample Type: Liquid

Station ID: T005-0010-100805-SW-1 Date Collected: 08/05/10 Sample Volume: 23 ml

Sample Qualifiers:

# **Surrogates**

Analyte	Result µg/l	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: DOSS-D34	192		111	50-150	08/06/10 08/06/10
		<b>Targets</b>			
Analyte (CAS Number)	Result µg/l	Analyte Qualifiers	Reporting Limit	Dilution	Prepared Analyzed

Dioctyl sulfosuccinate, sodium salt (577-11-7) 20.0 08/06/10 08/06/10 U

This LC/MS/MS method is a developmental method that was created specifically for the Gulf oil spill by the Region 6 lab in conjunction with other EPA laboratories. Therefore it has not been validated with the normal rigorous procedures and performance data that an EPA method would normally complete before being released. Improvements will continue to be made to this method as more is learned about the nuances of this technique with these analytes and various matrices. Proper sample collection or preservation procedures have not been established and holding times are unknown.

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# **Region 6 Laboratory**

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

# DOSS by LC/MS/MS

Lab ID: 1008017-07

Batch: B0H0605 Sample Type: Liquid **Station ID: T005-2339-100805-SW-1**Date Collected: 08/05/10

Sample Volume: 24 ml

Sample Qualifiers:

# **Surrogates**

Analyte	Result µg/l	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
Surr: DOSS-D34	192		115	50-150	08/06/10	08/06/10
		<b>Targets</b>				
Analyta (CAC Nyymhau)	Result	Analyte	Reporting	D'1 .:	D 1	A 1 1

Result Analyte (CAS Number)

Result ug/l Qualifiers

Reporting Limit

Dilution

Prepared Analyzed

Dioctyl sulfosuccinate, sodium salt (577-11-7)

U

19.6

1

08/06/10

08/06/10

This LC/MS/MS method is a developmental method that was created specifically for the Gulf oil spill by the Region 6 lab in conjunction with other EPA laboratories. Therefore it has not been validated with the normal rigorous procedures and performance data that an EPA method would normally complete before being released. Improvements will continue to be made to this method as more is learned about the nuances of this technique with these analytes and various matrices. Proper sample collection or preservation procedures have not been established and holding times are unknown.

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# **Region 6 Laboratory**

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

# DOSS by LC/MS/MS - Quality Control

**Batch: B0H0605** Sample Type: Liquid

# **Blank** (**B0H0605-BLK1**)

Prepared: 8/6/2010 Analyzed: 8/6/2010

#### **Surrogates**

ANALYTE	Result µg/l	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: DOSS-D34	200		200	100	50-150

## **Blank** (**B0H0605-BLK1**)

Prepared: 8/6/2010 Analyzed: 8/6/2010

#### **Targets**

ANALYTE		Analyte Reporting Qualifiers Limit	RPD RPD Limit
Dioctyl sulfosuccinate, sodium	U	20.0	

salt

# LCS (B0H0605-BS1)

Prepared: 8/6/2010 Analyzed: 8/6/2010

## **Surrogates**

ANALYTE	Result µg/l	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: DOSS-D34	209		200	105	50-150

## LCS (B0H0605-BS1)

Prepared: 8/6/2010 Analyzed: 8/6/2010

# **Targets**

ANALYTE	Result	Analyte Reporting	Spike	%REC	RPD
	µg/l	Qualifiers Limit	Level	%REC Limits	RPD Limit
Dioctyl sulfosuccinate, sodium salt	95.2	20.0	87.5	109 50-150	

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# Region 6 Laboratory

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# DOSS by LC/MS/MS - Quality Control

**Batch: B0H0605** Sample Type: Liquid

Matrix Spike (B0H0605-MS1)

Prepared: 8/6/2010 Analyzed: 8/6/2010 Source: 1008017-01

**Surrogates** 

ANALYTE	Result µg/l	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: DOSS-D34	189		182	104	50-150

Matrix Spike (B0H0605-MS1)

Prepared: 8/6/2010 Analyzed: 8/6/2010 Source: 1008017-01

**Targets** 

ANALYTE		Analyte Reporting Qualifiers Limit			%REC Limits	RPD	RPD Limit
Dioctyl sulfosuccinate, sodium	82.5	20.0	79.5	104	50-150		

salt

# Matrix Spike Dup (B0H0605-MSD1)

Prepared: 8/6/2010 Analyzed: 8/6/2010 Source: 1008017-01

**Surrogates** 

ANALYTE	Result µg/l	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: DOSS-D34	194		182	107	50-150

# Matrix Spike Dup (B0H0605-MSD1)

Source: 1008017-01 Prepared: 8/6/2010 Analyzed: 8/6/2010

# **Targets**

ANALYTE	Result µg/l	Analyte Reporting Qualifiers Limit			%REC Limits		RPD Limit
Dioctyl sulfosuccinate, sodium salt	89.6	20.0	79.5	113	50-150	8.32	30

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# **Region 6 Laboratory**

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# DOSS by LC/MS/MS - Quality Control

**Batch: B0H0901** Sample Type: Liquid

# **Blank** (**B0H0901-BLK1**)

Prepared: 8/9/2010 Analyzed: 8/9/2010

#### **Surrogates**

ANALYTE	Result	Analyte	Spike	%REC
	µg/l	Qualifier	Level	%REC Limits
Surr: DOSS-D34	198		200	99.2 50-150

#### **Blank** (**B0H0901-BLK1**)

Prepared: 8/9/2010 Analyzed: 8/9/2010

#### **Targets**

ANALYTE		Analyte Reporting Qualifiers Limit	RPD RPD Limit
Dioctyl sulfosuccinate, sodium	U	20.0	

salt

# LCS (B0H0901-BS1)

Prepared: 8/9/2010 Analyzed: 8/9/2010

## **Surrogates**

ANALYTE	Result µg/l	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: DOSS-D34	204		200	102	50-150

## LCS (B0H0901-BS1)

Prepared: 8/9/2010 Analyzed: 8/9/2010

# **Targets**

ANALYTE	Result	Analyte Reporting	Spike	%REC	RPD
	µg/l	Qualifiers Limit	Level	%REC Limits	RPD Limit
Dioctyl sulfosuccinate, sodium salt	91.3	20.0	87.5	104 50-150	

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No: T0033-100403-20100805-004 AirbillNo: 7601953 15000045

CHAIN OF CUSTODY RECORD R06\_Deepwater\_Grand\_Isle

# **Environmental Protection Agency**

# **Region 6 Laboratory**

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

	Sample #	Analyses	Matrix	Collection	Collected	Sample	Numb Cont Container	Container	Preservative	MS/MSD
T007-2	T007-2331-100805-SW- 05-1	SSOO	Surface Water	ar Grab	8/5/2010	10:50	9	6 40 ml VOA	4 C	>-
T007-2	T007-2333-100805-SW- 03-1	SSOO	Surface Water	rr Grab	8/5/2010	13:35	2	2 40 ml VOA	4 C	z
04-1	04-1 04-1	ssoo	Surface Water	Grab	8/5/2010	12.40	9	4 40 ml VOA	A O	z
							SAMPLES	SAMPLES TRANSFERRED FROM	D FROM	
INSTRUCTIO	US: I	601953 15000045					CHAIN OF	CHAIN OF CUSTODY#		
Items/Reason		Date	Received by Date	te Time	Items/Reason	Refinquished By	ed By Date	te Received by	ed by Date	e Time
Ar	Millery Cression	3/4/10 M	18 19 19 19 19 19 19 19 19 19 19 19 19 19	110 11138 150 1913 1410 1913		Court.	92:10	(-12)	30	

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# **Region 6 Laboratory**

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Sample #   Analyses   Matrix   Collected   Sample   Numb Cont   Preservativ MSMS   Description   Numb Cont   Numb Cont   Preservativ MSMS   Description   Numb Cont   Numb C	713-985-6600 US EPAWest Venice, LA	713-985-6600 US EPAWeston Venice, LA		R06 Deep H2O Horizon Reporting Lab: EPA Houston Lab Lab_State: TX	Deep H2O Horizon Rep Lab: EPA Houston Lab Lab_State: TX	Reporting				Lab Addres	Lab Address: 10625 Fallstone Rd Lab_City. Houston Lab_Zip: 77099	Rd for 1999
DOSS         Surface Water         Grab         85:2010         11:30         2 4C         N           DOSS         Surface Water         Grab         85:2010         09:50         2 4C         N           No.         Miller         No.         A         A         A         N           Date         Trme         Items/Resson         Reinquished By         Date         Received by           B.M.:         Miller         H.         3-5-10         1795         Miller         H.         3-10c         Miller           A.Y.:         Miller         H.         3-10c         Miller         H.         3-10c         Miller           A.Y.:         Miller         H.         3-10c         Miller         H.         3-10c         Miller           A.Y.:         Miller         H.         3-10c         Miller         H.         3-10c         Miller	Lab#	Sample #	Analyses	Matrix	Collecti on Method	Collected		Numb Con	t Preservativ e	MS/MS	Description	
DOSS Surface Water Grab 85/2010 09:50 2 4C N  A Surface Water Grab 85/2010 09:50 2 4C N  CARAMPLES TRANSFERRED FROM  CHAIN OF CUSTODY #  CHAIN OF		T001-1405-100805-SW-02-1	DOSS	Surface Water	Grab	8/5/2010	11:30		2 4 C	z		
Date   Received by Date Time   Items/Reason   Relinquished By Date   Received by   1745   174		1001-2002-100805-SW-1	SSSOO	Surface Water		8/5/2010	09:50		0	z		
Relinquished by Date Received by Date Time Items/Reason Relinquished by Date Received by Date Received by Date Received by Date Received by Date 14. 31.00 Miles 14. 31.00 Mil	ecial	structions: 5-Day Tumaround						SAMI	LES TRANSF N OF CUSTOI	ERRED FF	190H	
	M. co.	Relinguished by	3 4	S-S-10   The State of the State		ems/Reason		d By	The training	M Received b		E 20

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# **Region 6 Laboratory**

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

			Contact Phone:	Contact Name:			Lab	Lab: U.S. EPA Region 6 Laboratory Lab Phone: 281-983-2137	EPA Region 6 Laboratory Lab Phone: 281-983-2137
Sample #	41:	Analyses	Matrix	Collection	Collected	Sample Time	Numb Cont	Numb Cont Container	Preservative
T005-00	T005-0010-100805-SW-1	SSOO	Surface Water	Grab	8/5/2010	12:206	2	2 20 ml VOA	4 C
T005-23	T005-2339-100805-SW-1	ssoo	Surface Water	Grab	8/5/2010	11:15	2	2 20 ml VOA	0
Instruction	Special Instructions, 3 Day turn around time	g.				SAM	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #	RRED FROM	
Items/Reason	Relinquished by	Date Received by 8/5/10 Duck 8	Date Time 8/4/20 16:40	Items/Reason		Relinquished By	State To	Received by	Date Time 3/6/16 4:20
0		Shr Water	860012 86088	0 80				()	

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# Region 6 Laboratory

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#### **Notes and Definitions**

J The identification of the analyte is acceptable; the reported value is an estimate.

This sample was extracted at a single acid pH. A

HTS Sample was prepared and/or analyzed past recommended holding time. Concentrations should be

considered minimum values.

**AES Atomic Emission Spectrometer** 

**CVAA** Cold Vapor Atomic Absorption

**ECD Electron Capture Detector** 

GC Gas Chromatograph

**GFAA** Graphite Furnace Atomic Absorption

**ICP** Inductively Coupled Plasma

MS Mass Spectrometer

Not Applicable NA

**NPD** Nitrogen Phosphorous Detector

NR Not Reported

**TCLP** Toxicity Characteristic Leaching Procedure

Undetected U

Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds per square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

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